Listing of the Claims:

1. (Currently amended) A process for converting a feedstock into at least one useful material, comprising:

preparing a slurry from the feedstock, wherein the feedstock includes at least one of animal processing waste, mixed plastics, PVC, and rubber;

reacting the slurry in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product, and water;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into at least one useful material ~~in a second reaction~~.

2. (Previously presented) The process of claim 1, wherein said at least one useful material comprises carbon solids.

3. (Previously presented) The process of claim 1, wherein said at least one useful material comprises a mixture of hydrocarbons.

4. (Previously presented) The process of claim 3, wherein said mixture of hydrocarbons comprises a fuel gas and an oil.

5. (Previously presented) The process of claim 1, wherein said preparing comprises driving off ammonia from said feedstock.

6. (Currently amended) The process of claim 1, wherein said first reaction takes place at a pressure ranging from ~~of~~ about 20-120 atmospheres.

7. (Previously presented) The process of claim 6, wherein said pressure is about 50 atmospheres.

8. (Currently amended) The process of claim 1, wherein said first reaction takes place at a temperature ranging from ~~of~~ about 150 °C to about 330 °C.

9. (Previously presented) The process of claim 1, wherein said reacting drives off at least one contaminant.

10. (Previously presented) The process of claim 9, wherein said at least one contaminant is a sulfur-containing material.

11. (Previously presented) The process of claim 9, wherein said at least one contaminant is a mercury-containing material.

12. (Previously presented) The process of claim 9, wherein said at least one contaminant is a halogen-containing compound.

13. (Previously presented) The process of claim 1, wherein said reacting drives off steam.

14. (Previously presented) The process of claim 13, wherein said steam is redirected to heat said slurry during said preparing.

15. (Previously presented) The process of claim 1, wherein said separating comprises a first separation and a second separation.

16. (Previously presented) The process of claim 1, wherein said at least one reacted liquid product comprises at least one fat derivative or fatty acid.

17. (Previously presented) The process of claim 1, wherein said at least one reacted solid product comprises at least one mineral compound.

18. (Previously presented) The process of claim 1, further comprising, prior to said converting, diverting a portion of said at least one reacted liquid product and separately converting said portion into at least one specialty chemical.

19. (Previously presented) The process of claim 18, wherein said at least one specialty chemical comprises a fatty acid.

20. (Canceled)

21. (Previously presented) The process of claim 1, wherein said at least one useful material is pathogen-free.

22. (Previously presented) The process of claim 1, wherein said feedstock comprises rubber materials.

23. (Previously presented) The process of claim 22, wherein said feedstock comprises one or more tires.

24-25. (Canceled)

26. (Previously presented) The process of claim 1, wherein said feedstock includes animal processing waste.

27. (Previously presented) The process of claim 1, wherein said feedstock includes mixed plastics.

28. (Previously presented) The process of claim 1, wherein said feedstock includes PVC.

29. (Previously presented) The process of claim 28, wherein said first reacting drives off at least one chlorine-containing contaminant.

30. (Currently amended) The process of claim 26 ~~1~~, wherein ~~said feedstock~~ the animal processing waste comprises animal manure.

31-39. (Canceled)

40. (Previously presented) The process of claim 1, wherein said at least one useful material is a carbonaceous material.

41. (Previously presented) The process of claim 40, wherein the carbonaceous material is depleted of mercury-containing contaminants.

42. (Previously presented) The process of claim 40, wherein the carbonaceous material is depleted of sulfur-containing contaminants.

43-47. (Canceled)

48. (Currently amended) A process for converting a feedstock into at least one useful material, comprising: preparing a slurry from the feedstock;

passing the slurry through a heat exchanger, wherein one or more gases is vented, to produce a conditioned slurry;

reacting the conditioned slurry in a first reaction, wherein steam and gas is liberated, to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product, and water, wherein the reacted solid product comprises at least one mineral; lowering a temperature, and lowering a pressure, of the reacted feed, to produce an intermediate feed;

separating the at least one mineral from the intermediate feed, thereby producing a mixture comprising at least one reacted liquid product, and water;

diverting said water to storage; and

converting ~~subjecting~~ said at least one reacted liquid product to produce ~~a second reaction wherein~~ carbon solids and a mixture of hydrocarbon vapor and gases ~~are produced~~.

49-64. (Canceled)

65. (Currently amended) A process for converting tires into oil, comprising:

dissolving the tires in a solvent;

preparing a slurry from the tires;

reacting the slurry with water in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into oil ~~in a second reaction~~.

66. (Currently amended) The process of claim 65, wherein the first reaction takes place at a temperature ranging from ~~of~~ about 250 °C to ~~and~~ about 400 °C.

67. (Canceled)

68. (Currently amended) The process of claim 65, wherein the solvent is an oil obtained from said converting.

69. (Currently amended) A process for converting mixed plastics into at least one useful material, comprising:

preparing a slurry from the mixed plastics;

reacting the slurry with water in a first reaction to produce a reacted feed comprising at least one reacted solid product, at least one reacted liquid product;

separating said at least one reacted solid product, said water, and said at least one reacted liquid product from said reacted feed; and

converting said at least one reacted liquid product into at least one useful material ~~in a second reaction~~.

70. (Currently amended) The process of claim 69, wherein the first reaction takes place at a temperature ranging from ~~between~~ about 200 °C to ~~and~~ about 250 °C.

71. (Currently amended) The process of claim 69, wherein said converting ~~the second reaction~~ takes place at a temperature ranging from ~~between~~ about 300 °C to ~~and~~ about 525 °C.

72-74. (Canceled)

75. (Currently amended) A process for converting animal processing waste into at least one useful material, comprising:

preparing a slurry from the animal processing waste;

reacting the slurry in a first reaction to produce a reacted feed comprising at least one reacted solid product, and at least one reacted liquid product, and water;

separating the at least one reacted solid product, the water, and the at least one reacted liquid product from the reacted feed; and

~~in a second reaction,~~ converting the at least one reacted liquid product into a mixture of hydrocarbon oils, fuel gas, and carbon.

76. (Currently amended) The process of claim 75, wherein the first reaction takes place at a temperature ranging from ~~between~~ about 150 °C to ~~and~~ about 330 °C.

77. (Currently amended) The process of claim 75, wherein said converting ~~the second reaction~~ takes place at a temperature ranging from ~~between~~ about 300 °C to ~~and~~ about 525 °C.

78. (Previously presented) The process of claim 75, wherein the first reaction takes place at about 250 °C.

79. (Currently amended) The process of claim 75, wherein the first reaction takes place at a pressure ranging from ~~of~~ 20-120 atmospheres.

80. (Previously presented) The process of claim 75, wherein the first reaction takes place at a pressure of about 50 atmospheres.

81. (Previously presented) The process of claim 75, wherein the animal processing waste comprises animal offal.

82. (Previously presented) The process of claim 81, wherein the animal offal comprises turkey offal.

83. (Canceled)

84. (Previously presented) The process of claim 26, wherein said animal processing waste comprises animal offal.

85. (Previously presented) The process of claim 84, wherein said animal offal comprises turkey offal.

86. (Previously presented) The process of claim 75, wherein the animal processing waste comprises animal manure.

87. (New) The process of claim 1, wherein said converting comprises separating water from the reacted liquid product.

88. (New) The process of claim 87, wherein a fuel oil is produced by said converting.

89. (New) The process of claim 87, wherein said converting further comprises subjecting said at least one reacted liquid product to at least a second reaction.

90. (New) The process of claim 89, wherein the second reaction takes place at a temperature between about 300°C to about 525°C.

91. (New) The process of claim 89, wherein the second reaction comprises cracking the liquid hydrocarbon fuel.

92. (New) The process of claim 1, wherein said converting takes place at a temperature ranging from about 400 °C to about 600 °C.

93. (New) The process of claim 1, wherein said reacting comprises decomposing and hydrolyzing the feedstock.

94. (New) The process of claim 92, wherein the decomposing comprises deaminating the feedstock.

95. (New) The process of claim 93, wherein the decomposing further comprises decarboxylating the feedstock.

96. (New) A process for converting a feedstock into at least one useful material, comprising:

providing a feedstock including at least one of animal processing waste, mixed plastics, PVC and rubber;

slurrying the feedstock to form a slurry;

subjecting the slurry to temperature and pressure sufficient to produce a decomposition reaction in said slurry;

subjecting the slurry to temperature and pressure sufficient to produce a hydrolysis reaction in said slurry;

separating liquid, gaseous and solid fractions produced in said slurry by the decomposition and hydrolysis reactions;

separating water from the separated liquid to provide a fuel oil.

97. (New) The process of claim 96, wherein the decomposition reaction comprises deamination and decarboxylation.

98. (New) The process of claim 97, wherein the decomposition reaction and the hydrolysis reaction occur simultaneously.

99. (New) The process of claim 96, wherein slurrying comprises reducing particle size of the feedstock and fluidizing.

100. (New) The process of claim 96, wherein slurrying further comprises adding a solvent.

101. (New) The process of clam 97, wherein the temperature and pressure of the hydrolysis reaction are about 200°C to about 290°C.

102. (New) The process of claim 96, further comprising cracking the fuel oil.

103. (New) The process of claim 96, further comprising fractional distilling of the fuel oil to produce at least a heavy oil and a light oil.

104. (New) The process of claim 103, further comprising cracking the heavy oil.

105. (New) The process of claim 96, wherein said animal processing waste comprises turkey offal.

106. (New) The process of claim 96, wherein said mixed plastics include PVC.

107. (New) The process of claim 96, wherein said rubber comprises tires.